

**R E M A R K S**

Reconsideration of this application, as amended, is respectfully requested.

**THE DRAWINGS**

Figs. 2 and 5 have been amended as described hereinabove to correct some minor informalities of which the undersigned has become aware. Submitted herewith are corrected sheets of drawings which incorporate the amendments and annotated sheets showing the changes made thereto. No new matter has been added

**RE: THE ALLOWABLE SUBJECT MATTER**

The Examiner's indication of the allowability of the subject matter of claims 28 and 35 is respectfully acknowledged.

Claims 28 and 35 have been amended so as to be rewritten in independent form and include all of the subject matter of their parent claim 21 and respective intervening claims 27 and 32, as well as to correct some minor informalities so as to put them in better U.S. form.

No new matter has been added, and it is respectfully requested that the amendments to claims 28 and 35 be approved and entered. Accordingly, it is respectfully submitted that claims 28 and 35 are now in condition for immediate allowance.

RE: THE OTHER CLAIM AMENDMENTS

Claim 21 has been amended to clarify the feature of the present invention whereby the displaying section displays an image of each defect extracted by the defect extracting section, by superimposing the image of the defect on the two-dimensional image of a subject which is determined to have the defect, as supported by the disclosure in the specification at page 20, line 22 to page 21, line 11.

In addition, claim 21 has been amended to clarify the features of the present invention whereby when the parameter is adjusted by the parameter adjusting section: (i) the displaying section displays two kinds of two-dimensional images including at least one the two-dimensional image acquired by the image acquiring section when inspection is performed and a two-dimensional image of a subject which has been registered in advance as defective; (ii) the defect extracting section extracts updated defect data based on the defect extraction algorithm using the new parameter adjusted by the parameter adjusting section for the two kinds of two-dimensional images; and (iii) the display section displays each updated defect which is determined to exist based on the updated defect data extracted by the defect extracting section, by superimposing an image of the updated defect on corresponding images of the two kinds of two-dimensional images displayed by the displaying section.

Still further, claims 21-27, 29-34 and 36 have been amended to make some minor grammatical improvements and to correct some minor antecedent basis problems so as to put the claims in better U.S. form, and/or to better accord with amended independent claim 21.

No new matter has been added, and it is respectfully requested that the amendments to the claims be approved and entered.

RE: THE PRIOR ART REJECTION

Claims 21-27, 29-34 and 36 were rejected under 35 USC 103 as being obvious in view of the combination of USP 6,438,438 ("Takagi et al") and USP 6,597,381 ("Eskridge et al"). This rejection, however, is respectfully traversed with respect to the claims as amended hereinabove.

As recognized by the Examiner, Takagi et al discloses inspecting semiconductor devices and displaying defect classification results with a defect classification indication unit 6. However, it is respectfully submitted that Takagi et al does not disclose, teach or suggest the features of the present invention as recited in amended independent claim 21 whereby the displaying section displays an image of each defect extracted by the defect extracting section, by superimposing the image of the defect on the two-dimensional image of a subject which is

determined to have the defect, and whereby when the parameter is adjusted by the parameter adjusting section, the displaying section displays two kinds of two-dimensional images including at least one the two-dimensional image acquired by the image acquiring section when inspection is performed and a two-dimensional image of a subject which has been registered in advance as defective.

In addition, as acknowledged by the Examiner, Takagi et al does not disclose updating the display of the images. For this reason the Examiner has cited Eskridge et al.

It is respectfully submitted, however, that Eskridge merely discloses a graphical user interface which allows a user to input classification information into the system, and which updates information items in windows based on discrimination criteria selected by a user with respect to which information items are to be displayed. That is, as shown in Fig. 1 of Eskridge et al, if the user selects an item in frame 30 (the display list area), the item is highlighted in frame 20 (the graphical display area). In addition, it is respectfully pointed out that in Eskridge et al, the user is able to check the automated optical inspection system as it classifies defects, as shown in Fig. 2 thereof.

By contrast, according to the present invention as recited in claim 21, when the parameter is adjusted by the parameter adjusting section: (i) the defect extracting section extracts

updated defect data based on the defect extraction algorithm using the new parameter adjusted by the parameter adjusting section for the two kinds of two-dimensional images; and (ii) the display section displays each updated defect which is determined to exist based on the updated defect data extracted by the defect extracting section, by superimposing an image of the updated defect on corresponding images of the two kinds of two-dimensional images displayed by the displaying section.

Thus, according to the present invention as recited in amended independent claim 21, the parameter of the defect extraction algorithm is adjusted, and defect extraction is carried out for each image of the two kinds of two-dimensional images. Then, each two-dimensional image is displayed with a defect image superimposed thereon, if a defect is determined to be present. With this structure, the inspector operating the inspection apparatus can change the parameter and observe the changes in the displayed two-dimensional images to determine if the parameter is appropriate. Thus, if the known defective product is shown to not have a defect in the updated image according to the new parameter, for example, then the inspector confirms that the new parameter is not appropriate.

It is respectfully submitted that Takagi et al and Eskridge et al, taken singly or in combination, clearly do not at all disclose, teach or suggest the above-described structural

features and advantageous effects of the present invention as recited in amended independent claim 21.

Accordingly it is respectfully submitted that amended independent claim 21, and claims 22-27, 29-34 and 36 depending therefrom, all clearly patentably distinguish over Takagi et al and Eskridge et al, taken singly or in combination, under 35 USC 103.

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In view of the foregoing, entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,

  
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